Title: INTEGRATED CIRCUIT CAPABLE OF PRE-FETCHING DATA

Assignee: Intel Corporation

REMARKS

Page 9

Dkt: P18318 (INTEL)

This responds to the Office Action mailed on December 18, 2006. Reconsideration and allowance of the subject application, as amended, are respectfully requested.

Claims 1, 3, 7, 9, 11, 12, 17, 19, 21, 22, 27, 29, 32 and 37 have been amended per this amendment and claims 2, 5-6, 13, 15, 16, 23-25, 30 and 33-34 have been cancelled per this amendment. No new matter has been added to the subject application as a result of the changes made thereto.

35 USC § 102 Rejections

Claim 1-2, 4-8, 12-18, 22-27 and 29-36 stand rejected under 35 USC §102(b) as being anticipated by Uchihori (U.S. Patent No. 6,518,389). Applicants respectfully submit this rejection is in error.

Claim 1, as currently amended, requires "creating a table of profile data, said table comprising a plurality of requester profiles corresponding to a plurality of requestors of data, each said requester profile defining a relationship between a requester and historical device access data; storing, in a cache memory, data corresponding to said historical device access data for a plurality of said requesters; receiving a data read request for said data from one or more requesters and determining if said data read request matches said historical device access data; retrieving, from said cache memory and in response to said data request from one or more requesters, said data corresponding to said historical device access data; and sending said data to said one or more requesters." (Claim 1, as amended). Independent claims 12, 22 and 29 have been similarly amended.

The features of the claimed invention, as currently presented in the independent claims, now provide for the ability to create a table that includes historical access data for a plurality of requestors. The historical access data for each requestor may be tracked and the historical access data may then be stored in cache memory so that when a future data request comes in for that data, that data is readily available in cache memory. For example, referring specifically to the embodiment disclosed in Figure 1, a plurality of workstations 10, 12, 14 and 16 may each send requests for data to the storage array 40. As currently provided by the independent claims, the

Assignee: Intel Corporation

historical access data for each of these requestors (i.e. workstations) may be stored in cache memory to provide increased data read throughput in the system.

Page 10

Dkt: P18318 (INTEL)

It is Applicants' understanding that Uchihori discloses a pre-fetch prediction table that stores a history of readout access given from a host device. The controller accessed this information and makes a prediction of likely content that may be accessed in addition to the historical access. Importantly, however, nowhere does Uchihori disclose or suggest the concept of tracking the historical access data of multiple requestors (for example, multiple users of multiple workstations as shown in Figure 1). Moreover, nowhere does Uchihori disclose or suggest a coherent mechanism to populate cache memory with historical access data from a plurality of requestors.

In contrast, for example, the limitations of Applicants' invention of independent claim 1 require the creation of a table of a plurality of requestor profiles and storing, in cache memory, data corresponding to historical device access data for the plurality of requestors. Also, claim 1 requires receiving a data read request for that data, retrieving the data from the cache memory in response to the data read request and sending the data out to one or more requestors. As noted above, these features are nowhere disclosed or suggested in Uchihori. Thus, it is respectfully submitted that the Examiner's rejection of the claims under 35 USC § 102 as being anticipated by Uchihori is in error and should be withdrawn.

35 USC § 103 Rejection of the Claims

Claim 3 was rejected under 35 USC § 103(a) as being unpatentable over Uchihori in view of U.S. Publication No. 2004/0193807 to Mogi et al. ("Mogi"). Applicants respectfully traverse this rejection.

Dependent claim 3 is dependent from independent claim 1 described above. The Office Action relies on Mogi as teaching device identification information of one or more mass storage devices. Even if Uchihori could be combined with Mogi, the combination would fail to teach or suggest caching data of a plurality of requestors, for the reasons discussed above. Applicants submit therefore that dependent claim 3 is patentable by virtue of its dependency from claim 1 as well as for the additional limitations recited therein. Accordingly, applicants request that this rejection under 35 USC § 103(a) be withdrawn.

Serial Number: 10/808,182 Filing Date: March 24, 2004

Title: INTEGRATED CIRCUIT CAPABLE OF PRE-FETCHING DATA

Assignee: Intel Corporation

Claims 9 - 11, 19 - 21, 27 - 28 and 37 - 38 were rejected under 35 USC § 103(a) as being unpatentable over Uchihori in view of Harmer. Some of these claims have been cancelled in this amendment. To the extent this rejection applies to the remaining claims, Applicants respectfully traverse this rejection.

Dependent claims 9 - 11, 19 - 21, 27 - 28 and 37 - 38 all depend from respective independent claims 1, 12, 22 and 29 discussed above. The Office Action relies on Harmer as teaching the storage of device data layout information in cache memory. Even if Uchihori could be combined with Harmer, the combination would fail to teach or suggest caching data of a plurality of requestors, at least in part, on a requester profile, for the reasons discussed above. Applicants submit therefore that dependent claims 9 - 11, 19 - 21, 27 - 28 and 37 - 38 are patentable by virtue of their dependency from claims 1, 12, 22 and 29 as well as for the additional limitations recited therein. Accordingly, applicants request that this rejection under 35 USC § 103(a) be withdrawn.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. Further, Applicants assert that no new issues have been presented that would require a further search. The Examiner is invited to telephone Applicant's attorney (603-668-6560) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 50-2121.

Respectfully submitted,

MICHAEL A. ROTHMAN ET AL.

By their Representatives,

Customer Number: 45459

Telephone Number: 603-668-6560

By /Edmund P. Pfleger/ Edmund P. Pfleger Reg. No. 41,252